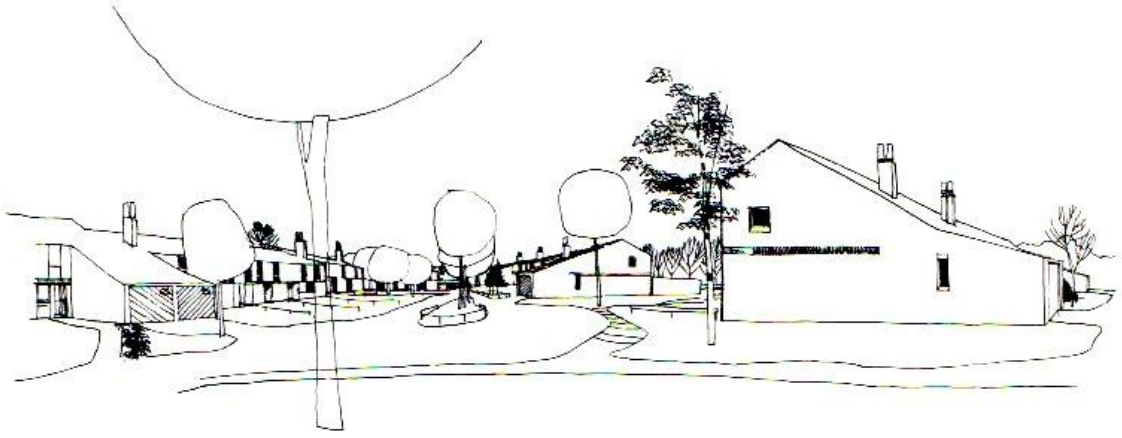
Irvine New Town Plan

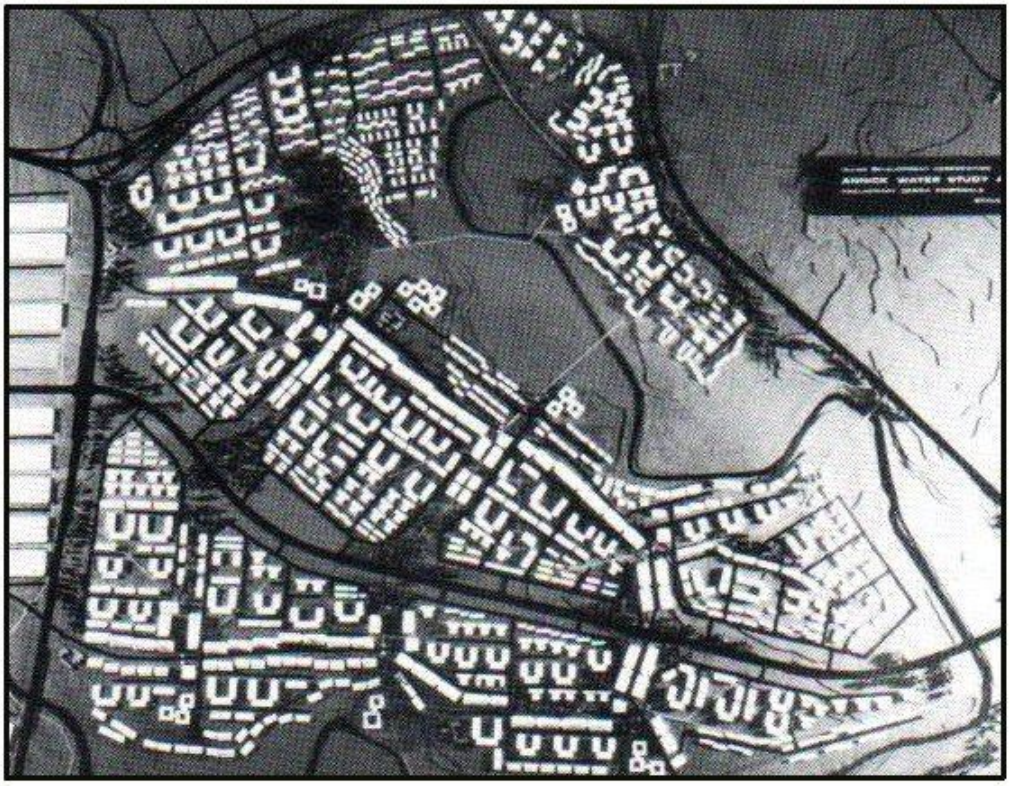
By IDC (Irvine Development Corporation)

Pub. 1971

Bourtreehill Excerpt

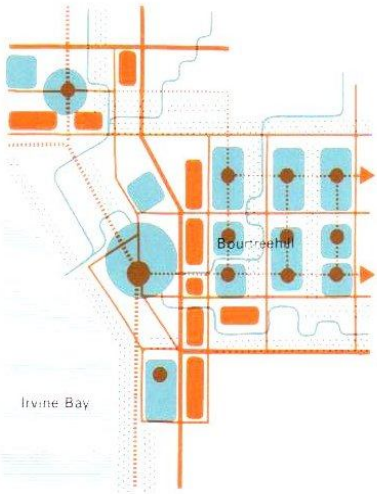
Scanned by William Kerr






Traffic
More..
©2009 Google - Imagery ©2009 DigitalGlobe

Bourtreehill Area



P1. Bourtreehill Area

P1.1 The Bourtreehill area forms the initial development within the overall structure plan for Annick Water. The site is defined by the line of the Stanecastle-Perceton distributor road in the north, the Dreghorn distributor in the south, the primary distributor in the east and the A.78, Irvine by-pass in the west.

The existing village of Dreghorn and the proposed industrial development at Newmoor have been integrated with the new housing development but have not been studied in depth. The area contains many of the problems likely to be encountered in the rest of the Annick Water development, including mining subsidence, existing overhead and underground services, flooding and the treatment of existing roads.

Site Appraisal

P1.2 The Annick Water bounds the site on the east, with land rising from the river to Bourtreehill and Girdle Toll. The steepest slopes are to the west and south of this high ground. From the highest ground there are views over existing Irvine to the Firth of Clyde, Isle of Arran and Ailsa Craig. There are excellent views from the east of the site across Annick Water towards Perceton and southwards towards Dreghorn village and Dundonald Hill. The existing woodland is situated in a commanding position at Bourtreehill and is the most outstanding feature of the site. The existing B.730 Stanecastle-Dreghorn road crosses the site diagonally from north-west to south-east. From this route a minor road runs westwards across the south of the site towards Irvine. A further minor road connects these two routes between Broomlands and Fencedyke.

Analysis of Conditions

P1.3 Existing Services

A number of existing services pass through the site each of which imposes a major constraint on development.

1. A 132 KV line runs through the site from north to south-east.
2. The Water Board's main feeder to North Ayrshire in the form of a 0.9m high pressure main.
3. A 0.3m supergrid gas main acting as a trunk feeder.
4. A low pressure 0.1m gas main.

P1.4 Sub soil Conditions

It is considered that adequate bearing capacities will be obtained in all sub-soil conditions, but detailed investigation will be required prior to development.

P1.5 Old Mine Workings

Preliminary investigations have revealed that over approximately 50% of this area there need be no building restraints due to old coal workings, whilst 30% should be limited to 5-storey buildings, and 20% to 2-storey buildings. It is possible that limited zones within the 2-storey areas may require special precautions in foundation design. There are 35 known pit shafts in this area which will require treatment.

P1.6 Flooding

Most of the low lying land of the Annick Water is subject to frequent flooding. Two or three times a year flooding occurs over land bordering the Annick near Law Farm, Bourtreehill, Towerlands, Capringstone and East Broomlands, the water flowing through breaks in the flood banks. More serious flooding occurs on average every 10 to 15 years when the river overflows its banks to submerge all low-lying land.

P1.7 Drainage

Surface water drainage will consist of several outfalls into the Annick Water. Their location will depend upon the phasing of development and the relationship to the natural watershed. The west of the area will be drained to a main surface water sewer which will follow the line of the A.78 Irvine by-pass discharging into the Annick Water. Foul drainage will be taken into the main trunk sewer system which follows approximately the line of the Annick Water. The phasing of this sewer will provide an available outfall up to Dreghorn Bridge on the B.730 by the end of 1971 and subsequent phases will provide outfalls to the whole area over a five-year period.

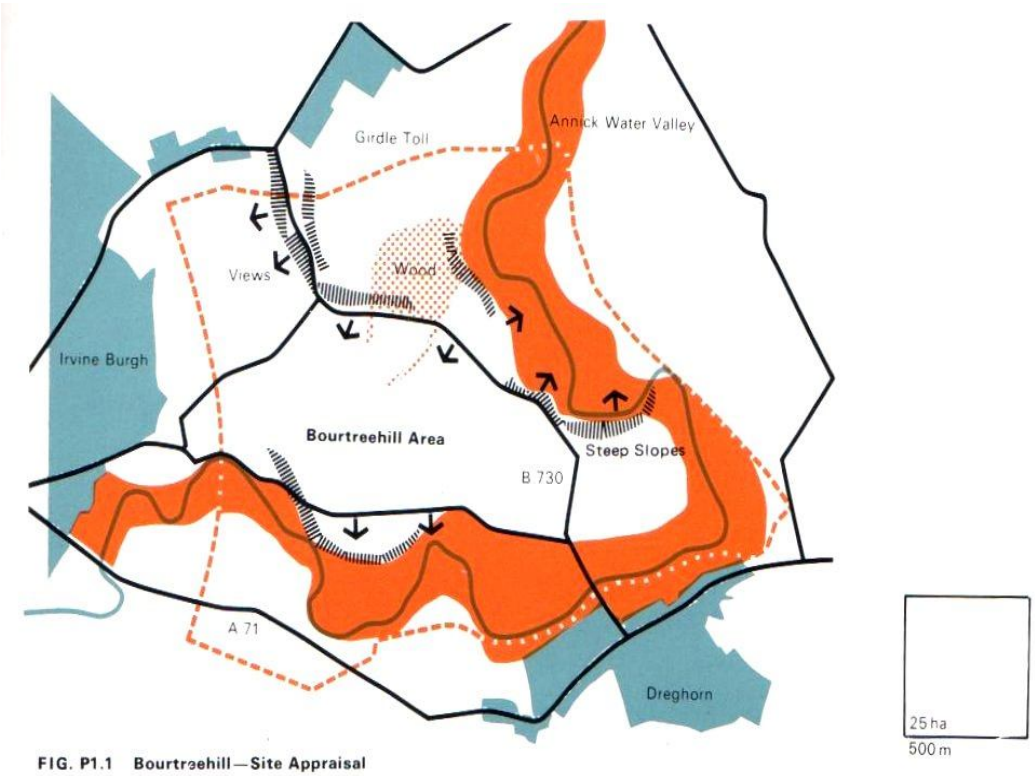


FIG. P1.1 Bourtreehill—Site Appraisal

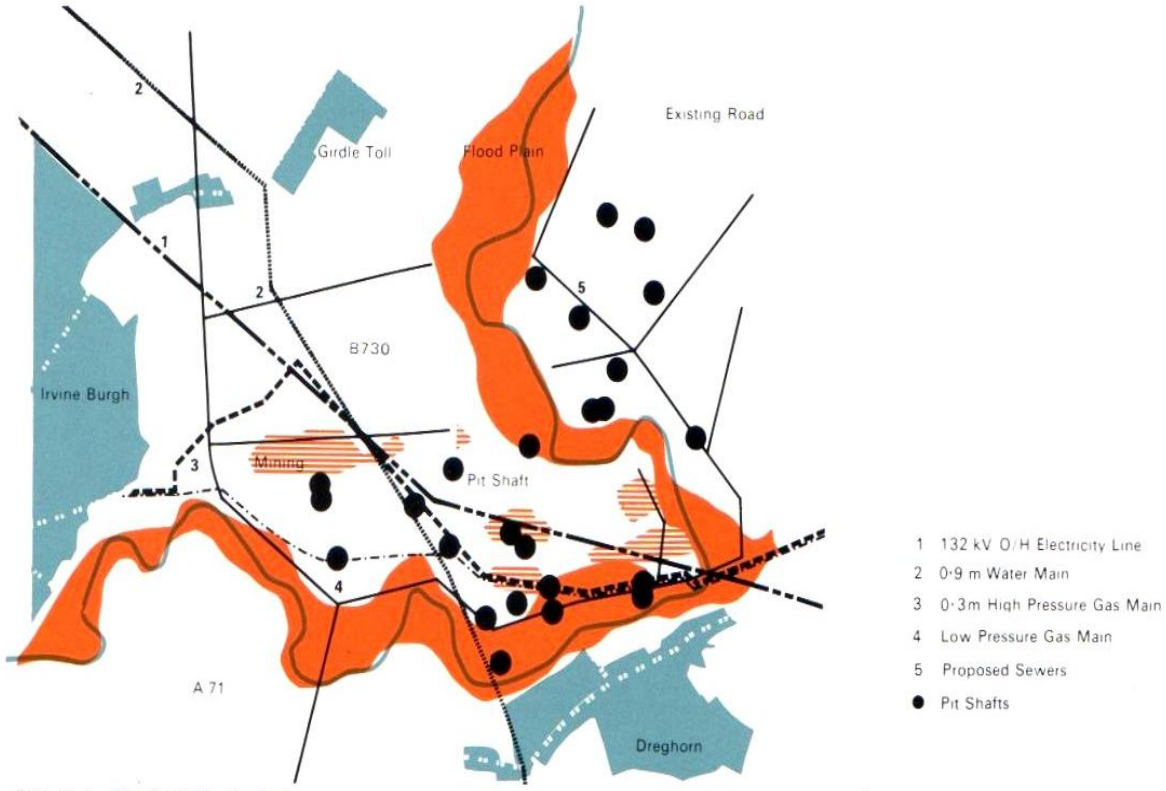


FIG. P1.2 Bourtreehill—Analysis

Bourtreehill Area

Development Principles

P1.8 Roads

The existing roads, when they become community routes, will be the focus of community activity with strong pedestrian orientation reinforced by a public transport system. The Dreghorn-Broomlands road into Irvine provides the opportunity of linking the new development with existing Irvine, as well as serving the proposed industrial area at Newmoor.

The community routes link at certain controlled points to the distributor road system and thence to industry, Central Area and existing development.

The visual impact of the 132 KV line and its sterilization of land has been minimised by locating the central distributor road parallel to the pylons.

P1.9 Annick Valley and Bourtreehill

The Annick Valley presents a unique opportunity for the creation of a major linear park for the New Town giving a continuous pedestrian greenway from the heart of the new housing communities to the Central Area and Foreshore. The wood at Bourtreehill provides a central point of identification for the area and all other landscape features are exploited to the full for recreation and open space purposes. School sites are located wherever possible adjacent to major open space.

P1.10 Newmoor industrial area

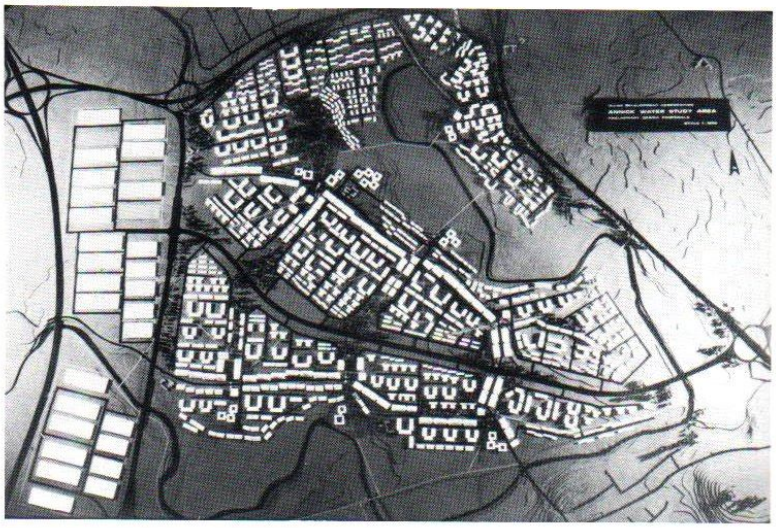
This area lies between the new housing communities and existing Irvine. Advantage will be taken of its location to create a working environment which is an integral part of the town structure.

P1.11 Dreghorn Village

With the provision of the distributor road south of Dreghorn the opportunity will arise to reorganise and rationalise the traffic movements within existing settlements such as Dreghorn village. This would allow for the creation of an attractive village environment particularly in the Main Street.

Population and Community Facilities

P1.12 104 hectares are suitable for residential development. The population capacity depends on certain assumptions as to the ratio of owner-occupied to rental housing, densities and house size. Three alternative housing ratios have been investigated with a range of 15-30 dwellings per



Bourtreehill Housing

Table P1.1
Population and Community Facilities—Bourtreehill

9,340 People 30% Owner-occupied 15 Dwellings per ha 70% Rented 40 Dwellings per ha		16,000 People 20% Owner-occupied 20 Dwellings per ha 80% Rented 50 Dwellings per ha	21,250 People 15% Owner-occupied 30 Dwellings per ha 85% Rented 60 Dwellings per ha
Comprehensive School		1	1
Primary School	2	4	5
R.C. Primary School		1	1
Nursery School	2	4	5
Local Centre		1	1
Local Shops	4-6	4	4
Petrol Station		1	1
District Pub		1	1
Local Pub	2	3	4
Health Centre			1
Indoor Sports Centre		1	1
Youth/Social Club		1	1
Church of Scotland	1	1	1
R.C. Church	1	1	1
Ecumenical Centre			1
Adventure Playground	2	3	4
Kickabout Areas	3	6	8
Play Areas	9	15	21

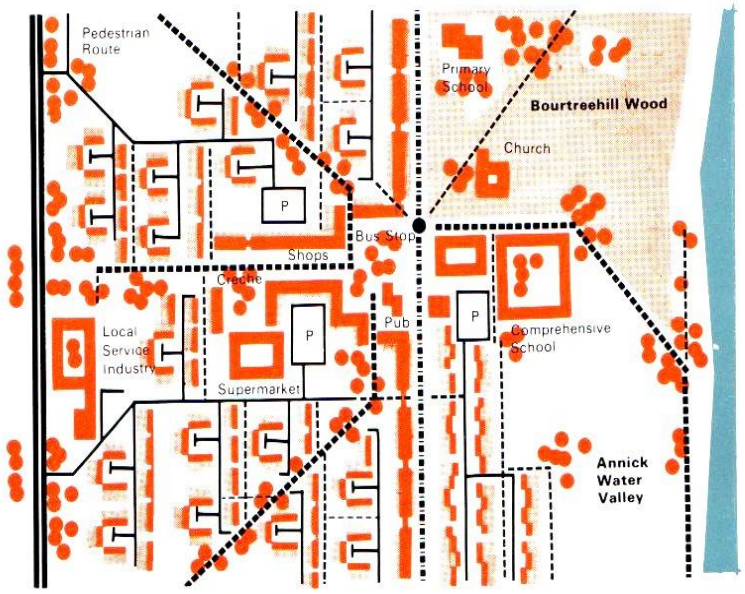


FIG. P1.3 Bourtreehill—Local Centre

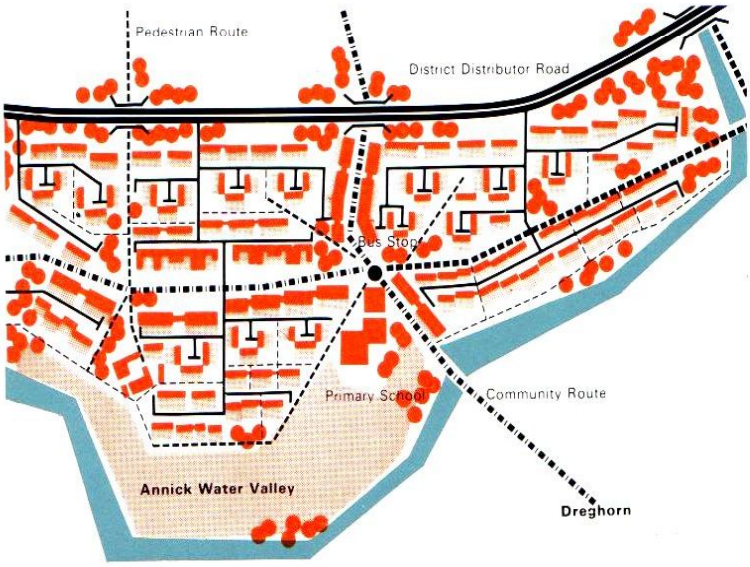


FIG. P1.4 Bourtreehill—Housing

hectare for owner-occupied housing and 40-60 dwellings per hectare for rented housing. Household size was assumed to be 3·5 persons per dwelling. From these figures maximum, minimum and intermediate population ranges and community facility provision have been estimated (See Table P1.1).

Proposal · Housing Strategy

P1.13 The topographical features and physical restrictions will create residential units of widely differing character giving each community a sense of identity and individuality whilst adhering to the basic design principles. Emphasis is placed on three main requirements, privacy, convenience and choice.

P1.14 The sketch layout for the first phase of development illustrates the concept of a density build up from the perimeter distrubutor road to the central community route spine. The hierarchy of footpaths is clearly defined, and a build up in form and scale towards the local centres will produce stronger pedestrian lines of movement, at the same time providing greater protection from the weather.

P1.15 In the high density areas adjacent to the community route, covered parking, with play areas over is being investigated, to avoid the sterilisation of large areas for parking and servicing. Medium rise deck access flats and maisonettes are being examined for the housing form in this part of the development. Because of the undulating nature of the site the deck access concept is highly applicable here. Normally pedestrian routes will be parallel to the community routes on footpaths raised above the level of the bus track. A high density housing spine 2-3 storeys high could be built along the main pedestrian footpath with projecting upper storeys to give weather protection. Where the land form undulates the footpath could continue on the horizontal giving 2-3 floors of housing development below and 2-3 floors above whilst the footpath itself continues as a raised deck. The main footpaths will always be weather-protected allowing pedestrians to pass from local shops to schools and other community facilities along the community route.

Bourtreehill Area

Table P1.2
Land Use—Bourtreehill

Use	Area
Residential Areas, including:	
School Sites, Local Centres, etc.	117.0 ha
Industrial Sites	42.0 ha
Roads, Open Space, Tree Belts, etc.	57.0 ha
Existing Woodland	8.0 ha
Total Area	224.0 ha

P1.16 In the medium and low density housing areas, garages or parking spaces immediately adjacent to the houses would be provided wherever possible to give maximum convenience and flexibility in use. A mews court development has been devised with some 15-20 houses arranged around a square in which free mixing of vehicles and pedestrians is accepted. The use of single aspect housing to increase individual privacy in house and garden is being examined. Adjoining landscaped open areas will contain toddlers' play spaces and equipped play areas will be located in strategic positions with direct access from the main footpath systems.

P1.17 The shift in emphasis from pedestrian to vehicular movement as distance from the community route increases is illustrated in the housing form suggested at the periphery of the development. This is envisaged as a high rental or owner-occupied, higher amenity, lower density area with a tendency towards a higher car ownership. Narrow frontage patio houses, step section houses and courtyard houses are all being investigated for these areas.

Phasing

P1.18 The site identified as being most suitable for immediate development is in the area of East Broomlands between the Annick Water and the new secondary distributor road. Here a trial scheme of 350 houses designed to metric space standards will commence in early 1972. Development of this site enables residents to make use of the existing facilities in Dreghorn village prior to the provision of new facilities, and also permits a logical development of the remainder of the study area in two directions along the community routes; westwards towards the industrial area and northwards towards Bourtreehill and Stanecastle.

P1.19 Assuming building contracts of 350 houses and the use of the common house types to metric standards being developed by the Scottish New Towns, the whole of the study area can be completed by the end of 1976. The early provision of a box of distributor roads around each section of the community route is important to implement the concept and remove unnecessary traffic at an early stage.

FIG. P1.5 Bourtreehill—Section through development